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EXAMINER
MANOHARAN, MUTHUSWAMY GANAPATHY

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,691	CHEN ET AL.	
	Examiner	Art Unit	
	Muthuswamy G. Manoharan	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☒ Claim(s) *2,5,9,11,13,17,20,25,27 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

Claims 2,5,9,11,13,17,20,25,27 and 29 are objected to because of the following informalities: Typographical error in the word "spacial" should be corrected as "spatial". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,5-12,16-20, and 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Hines et al. (hereinafter Hines) (US 2004/0192337).

Regarding claim 1, Hines teaches a location service information providing system (Figure 1 and Figure 6) including at least one requester (item 402 in Figure 1) and at least one requestee (item 412 in Figure 4), the system providing subscribed information for one of said at least one requester, in response to a subscription service request based on the location of one of said at least on requestee sent from one of said at least one requester (Paragraph [0051], lines 1-3), said system comprising a location service providing device for generating a task relating to the subscription service request, in response to the subscription service request based on the location of said one of said

at least one requestee (Paragraph [0053], line 2-4) sent from said one of said at least one requester (Paragraph [0051], lines 1-3),

said one of said at least one requestee receiving the task from said location service providing device (Paragraph [0052]; step 2 in Figure 6), executing the task (Paragraph [0053], line 3), generating the subscribed information responding to the subscription service request, and sending the generated subscribed information to said one of said at least one requester (Paragraph [0053], line 3-4).

Regarding claim 2, Hines teaches the location service information providing system according to claim 1, said location service information providing device comprising: subscription service request receiving means (item 404 in Figure 4), for receiving the subscription service request from said one of said at least one requester (step 1 in Figure 4; Paragraph [0051], lines 1-3), geographical information storage means (item 105 in Figure 1; Paragraph [0006], lines 3-6), task application generation module storage means (items 160 and 100 in Figure 1), for storing one or more task application generation modules for generating task applications; geographical information extracting means, for extracting the spatial geographical information relating to the geographical information specified from the subscription service request, from said geographical information storage means (item 105 and 170 in Figure 1), task generator (item 406 in Figure 6), for generating one or more task applications for generating the subscribed information relative to the geographical location information, according to one or more triggers included in the subscription service request (Paragraph [0007], lines 1-8) and for triggering the generating the subscribed

information relative to the geographical location information (Paragraph [0017], lines 1-4), by utilizing the task application generation modules stored in said task application generation module storage means; said task generator generating a task based on the generated task applications and the geographical information extracted by said geographical information extracting means, and transmitting the task to said one of said at least one requestee (step 2 in Figure 6; Paragraph [0052], line 1-4)

Regarding claim 5, Hines teaches the location service providing system according to claim 2, the one or more triggers (Figure 5) being spatial and/or temporal related conditions (Paragraph [0033], lines 10-12, Paragraph [0032], line 1) relating to the specified geographical location.

Regarding claim 6, The location service information providing system according to 5, said task generator further generating a control program (Paragraph [0053], lines 1-5) for controlling the task application(s) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at least one requestee.

Regarding claim 7, Hines teaches the location service information providing system according to claim 1,said one of said at least one requestee being a pervasive device (item 125, Figure 1).

Regarding claim 8, Hines teaches the location service information providing system according to claim 3, said self-positioning means being a GPS system (Paragraph [0037], lines 6-8).

Regarding claim 9, Hines teaches a location service information providing device (item 404 in Figure 6), for generating a task based on a location of a requestee (item 130 in Figure 1) for a requester, in response to the subscription service request based on the location of the requestee sent from the requester, said location service information providing device comprising: subscription service request receiving means (step 1 in Figure 4), for receiving the subscription service request from said requester (item 420 in Figure 4), geographical information storage means (item 105 in Figure 1), for storing the spatial geographical location information within the range where said requestee is that can be located, task application generation module storage means, for storing one or more task application generation modules for generating task applications geographical information extracting means ("MAP DATA" in Figure 1), for extracting the spatial geographical information relating to the geographical information specified from the subscription service request, from said geographical information storage means; task generator (item 160 in Figure 1), for generating one or more task applications for generating the subscribed information relative to the geographical location information, according to one or more triggers included in the subscription service request and for triggering generating a task based on the generated task application(s) and the geographical information extracted by said geographical information extracting means, and transmitting the task to said requestee (step 2 in Figure 4 and Figure 6).

Regarding claim 10, Hines teaches the location service information providing device according to claim 9, said location service information providing device further

comprising subscribed information transmitting means for transmitting the subscribed information received from said requestee to said requester (Paragraph [0054], lines 2-3).

Regarding claim 11, Hines teaches the location service information providing device according to claim 9 [[or 10]] the one or more triggers ("UE software monitors Areas to send trigger" and step 3 in Figure 6) being spatial and/or temporal (Paragraph [0033], lines 10-12; Paragraph [0032], line 1) related conditions relating to the specified geographical location.

Regarding claim 12. Hines teaches the location service information providing device according to claim 11, said task generator further generating a control program (Paragraph [0053]) for controlling the task application(s) based on the special requirement included in the subscription service request, and transmitting said control program to said requestee.

Regarding claim 16, Hines teaches a location service information providing method (Figure 1 and Figure 6), for providing subscribed information based on the location of at least one request for one of at least one requester (item 402 in Figure 1), in response to a subscription service request based on the location of one of said at least on requestee (item 412 in Figure 4) sent from one requester (Paragraph [0051], lines 1-3), comprising the steps: location service providing device for generating a task relating to the subscription service request, in response to the subscription service request based on the location of said one of said at least one requestee (Paragraph [0053], line 2-4) sent from said one of said at least one requester (Paragraph [0051],

lines 1-3), said one of said at least one requestee receiving the task from said location service providing device (Paragraph [0052]; step 2 in Figure 6), executing the task (Paragraph [0053], line 3), generating the subscribed information responding to the subscription service request, and sending the generated subscribed information to said one of said at least one requester (Paragraph [0053], line 3-4).

Regarding claim 17, Hines teaches the location service information providing method according to claim 16, the step of said location service information providing device generating the task further comprising the steps of, receiving the subscription service request from said one of said at least requester (step 1 in Figure 4; Paragraph [0051], lines 1-3), extracting the spatial geographical information (item 105 in Figure 1; Paragraph [0006], lines 3-6) relating to the specified geographical location, from geographical information storage means (item 105 and 170 in Figure 1), storing the spatial geographical location information within the range where said at least one requestee can be located, according to the geographical location data specified from the subscription service request; generating one or more task applications (step 2 in Figure 4 and Figure 6) for generating the subscribed information relative to the geographical location information, according to one or more triggers (Figure 5) included in the subscription service request and for triggering the generating the subscribed information relative to the geographical location information (Paragraph [0007], lines 1-8), generating a task based on the generated task application(s) and the extracted geographical information, and transmitting the task to said one of said at least one requestee (step 2 in Figure 4 and Figure 6).

Regarding claim 18, Hines teaches the location service information providing method according to claim 17, said step of said one of said at least one requestee executing the task further comprising the steps: receiving the task from said location service information providing device (step 2 in Figure 4 and Figure 6), in response to the received task, controlling the running of the task application(s) to generate the subscribed information, sending the subscribed information generated by the task application(s) to said one of said at least one requester (Paragraph [0054], line 4).

Regarding claim 19, Hines teaches the location service information providing method according to claim 17, further comprising the step of: said location service information providing device transmitting the subscribed information received from said one of said at least one requestee to said one of said at least one requester (step 7 and step 8 in Figure 4; step 3 and step 4 from Figure 6).

Regarding claim 20, Hines teaches the location service information providing method according to claim 17, the one or more triggers (Figure 5) being spatial and/or temporal related conditions (Paragraph [0033], lines 10-12; Paragraph [0032], line 1) relating to the specified geographical location.

Regarding claim 23, Hines teaches the location service information providing method according to claim 16, said one of said at least one requestee being a pervasive device (item 125, Figure 1, Paragraph [0018], lines 4-6).

Regarding claim 24, Hines teaches the location service information providing method the location service information providing method according to claim 18, said self-positioning means being a GPS system (Paragraph [0037], lines 6-8).

Regarding claim 25, Hines teaches a method for generating a task based on a location of a requestee for a requester, in response to the subscription service request based on the location of the requestee sent from the requester, comprising the steps of: receiving the susbscription service request from said requester (step 1 in Figure 4), extracting the spatial geographical information relating to the specified geographical location ("MAP DATA" in Figure 1), from geographical information storage means (item 105 in Figure 1) storing the spatial geographical location information within the range where said requestee can be located (Paragraph [0006], lines 1-6), according to the geographical location data specified from the subscription service request, generating one or more task applications for generating the subscribed information relative to the geographical location information, according to one or more triggers (Paragraph [0017], lines 1-4) included in the subscription service request and for triggering the generating the subscribed information relative to the geographical location information (Paragraph [0007], lines 5-8), generating a task based on the generated task application(s) and the extracted geographical information, and transmitting the task to said requestee.

Regarding claim 26, Hines teaches the method for generating a task according to claim 25, further comprising the step of: said location service information providing device transmitting the subscribed information received from said requestee to said requester (Paragraph [0054], lines 2-3)

Regarding claim 27, Hines teaches the method for generating a task according to claim 25, the one or more triggers ("UE software monitors Areas to send trigger" and step 3 in Figure 6) being spatial and/or temporal (Paragraph [0033], lines 12-13;

Paragraph [0032], line 1) related conditions relating to the specified geographical location.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3,4,13-15,21,22, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hines in view of Rankin et al. (hereinafter Rankine) (US 2002/0155844).

Regarding claim 3 Hines teaches all the particulars of the claim2. Regarding claim 3, further teaches the location service information providing system according to claim 2, said one of said at least one requestee (item 412 in Figure 6) comprising: task receiving means (step 2 in Figure 6), for receiving the task from said location service information providing device; task application storage means, for storing the task application(s) included in the task (Paragraph [0053], line 1); task executing engine (Paragraph [0053], lines 1-5), for controlling, in response to the received task by said task receiving means, the running of the task application(s) stored in said task application storage means to generate the subscribed information; self-positioning

means (Paragraph [0037], lines 6-8), for providing the current geographical location information of said one of said at least one requestee for the task application(s); subscribed information transmitting means(Paragraph [0056], lines 1-5), for sending the subscribed information generated by the task application(s) to said one of said at least one requester. Hines fails to teach geographical information storage means, for storing the spatial geographical information included in the task. However, Rankin teaches in an analogous art, geographical information storage means, for storing the spatial geographical information included in the task (Paragraph [0011], line 1-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have geographical information storage means, for storing the spatial geographical information included in the task. This modification helps in reducing the network traffic and latency.

Regarding claim 4, Hines in view of Rankin teaches all the particulars of claim 3. Hines further teaches the location service information providing system according to claim 3, said location service information providing device further comprising subscribed information transmitting means for transmitting the subscribed information received from said one of said at least one requestee to said one of said at least one requester (Paragraph [0054], lines 2-3).

Regarding claim 13, Hines teaches a device, pervasive device, for providing the subscribed information based on the location of the pervasive device, in response to the subscription service request based on the location of the pervasive device sent from a requester, task receiving means (step 2 in Figure 4 and Figure 6) for receiving a task

from a location service information providing device, task application storage means (Paragraph [0053], line 1) for storing the task application(s) included in the task; task executing engine (Paragraph [0053], line1) for controlling, in response to the received task by said task receiving means, the running of the task application(s) stored in said task application storage means to generate the subscribed information; self-positioning means (Paragraph [0037], lines 6-8) for providing the current geographical location information of said pervasive device for the task applications; subscribed information transmitting means (Paragraph [0054], lines 3-4) for sending the subscribed information generated by the task application(s) to said requester, wherein the spatial geographical information is extracted from spatial geographical information storage means by the location service information providing device, based on the geographical location data specified from the subscription service request, wherein the task application(s) for generating the subscribed information relative to the geographical location information is generated by said location service information providing device, according to one or more triggers (Paragraph [0056], line 3) included in the subscription service request and for triggering the generating the subscribed information relative to the geographical location information and wherein said task includes said spatial geographical information (Paragraph [0057], lines 1-2) and the task application(s). Hines fails to teach geographical information storage means for storing the spatial geographical information included in the task. Rankin teaches in an analogous art, geographical information storage means, for storing the spatial geographical information included in the task (Paragraph [0011], lines 1-8). Therefore, it would have been obvious to one of ordinary

skill in the art at the time of invention to have geographical information storage means, for storing the spatial geographical information included in the task. This modification helps in reducing the network traffic and latency.

Regarding claim 14, Hines in view of Rankin teaches all the particulars of the claim 13. Hines fails to teach the pervasive device according to claim 13, the task further including a control program for controlling the task application(s) generated by said location service information providing device, based on the special requirement included in the subscription service request. However, Rankin teaches in an analogous art, teaches the pervasive device according to claim 13, the task further including a control program for controlling the task application(s) generated by said location service information providing device, based on the special requirement included in the subscription service request (Paragraph [0029], lines 13-15; Paragraph [0030], lines 12-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have the pervasive device according to claim 13, the task further including a control program for controlling the task application(s) generated by said location service information providing device, based on the special requirement included in the subscription service request. This modification helps in reducing the network traffic and latency.

Regarding claim 15, Hines in view of Rankin teaches all the particulars of the claim 13. Hines further teaches the pervasive device according to claim 13, said self-positioning means is a GPS system (Paragraph [0037], lines 6-8).

Regarding claim 21, Hines in view of Rankin teaches all the particulars of the claim 20. Hines fails to teach the location service information providing method according to claim 20, further comprising the step of: said location service information providing device further generating a control program for controlling the task application(s) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at least one requestee. However, Rankin teaches in an analogous art teaches teach the location service information providing method according to claim 20, further comprising the step of: said location service information providing device further generating a control program (Paragraph [0030], lines 12-14) for controlling the task application(s) (Paragraph [0029], lines 13-15) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at least one requestee. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have the location service information providing method according to claim 20, further comprising the step of: said location service information providing device further generating a control program (Paragraph [0030], lines 12-14) for controlling the task application(s) (Paragraph [0029], lines 13-15) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at least one requestee.

Regarding claim 22, Hines in view Rankin teaches all the particulars of the claim 20. Hines further teaches the location service information providing method according to claim 20, the received task further comprising the steps of: monitoring the triggers

(Paragraph [0017], lines 1-4); sending a request for detecting the current geographical location of said one of said at least one requestee (Paragraph [0028], lines 1-11), to a self-positioning means, when the trigger(s) is/are on so as to detect the current geographical location of said one of said at least one requestee, receiving the current geographical location of said one of said at least one requestee detected by said self-positioning means, and calculating so as to generate the subscribed information based on the current geographical location of said one of said at least one requestee provided by said self-positioning means (Paragraph [0037], lines 6-8). Hines fails to teach the controlling step responsive to the received task. However, Rankin teaches in an analogous art, controlling step (Paragraph [0030], lines 12-14; Paragraph [0029], lines 13-15) responsive to the received task. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the controlling step responsive to the received task.

Regarding claim 28, Hines in view of Rankin teaches all the particulars of claim 25. Hines fails to teach the method for generating a task according to claim 25, further comprising the step of: said location service information providing device further generating a control program for controlling the task application(s) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at last one requestee. However, Rankin teaches in an analogous art, the method for generating a task according to claim 25, further comprising the step of: said location service information providing device further generating a control program for controlling the task application(s) (Paragraph [0030],

lines 12-14; Paragraph [0029], lines 13-15) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at last one requestee. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include teach the method for generating a task according to claim 25, further comprising the step of: said location service information providing device further generating a control program for controlling the task application(s) based on the special requirement included in the subscription service request, and transmitting said control program to said one of said at last one requestee. This modification helps in reducing the network traffic and latency.

Regarding claim 29, Hines teaches a location service information providing method in a pervasive device, for providing the subscribed information based on the location of the pervasive device, in response to the subscription service request based on the location of the pervasive device sent from a requester, comprising the steps of: receiving a task from a location service information providing device (step 1 and step 2 in Figure 4 and Figure 6), the task including one or more task application and the spatial geographical location information; sending the subscribed information (Paragraph [0054], lines 3-5) generated by the task application(s) to said requester, wherein the spatial geographical information being extracted from spatial geographical information storage means by the location service information providing device, based on the geographical location data specified from the subscription service request (Paragraph [0051], lines 1-3), and wherein the one or more task applications for generating the subscribed information relative to the geographical location information is generated by

said location service information providing device, according to one or more triggers (Paragraph [0056], line 3) included in the subscription service request and for triggering the generating the subscribed information relative to the geographical location information (Paragraph [0057], lines 1-3). Hines fails to teach a location service information providing method in a pervasive device, for providing the subscribed information based on the location of the pervasive device, in response to the subscription service request based on the location of the pervasive device sent from a requester, comprising the steps of: performing control, in response to the received task, so as to run the task application(s) to generate the subscribed information. Rankin teaches in an analogous art, teach a location service information providing method in a pervasive device, for providing the subscribed information based on the location of the pervasive device, in response to the subscription service request based on the location of the pervasive device sent from a requester, comprising the steps of: performing control, (Paragraph [0029], lines 13-16; Paragraph [0030], lines 12-14) in response to the received task, so as to run the task application(s) to generate the subscribed information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have teach a location service information providing method in a pervasive device, for providing the subscribed information based on the location of the pervasive device, in response to the subscription service request based on the location of the pervasive device sent from a requester, comprising the steps of: performing control, in response to the received task, so as to run the task application(s) to generate

the subscribed information. The modification minimizes the interaction with the communications network and thereby decreasing communications latency.

Regarding claim 30, Hines teaches the location service information providing method according to claim 29, said step of controlling responsive to the received task comprising the steps of: monitoring the triggers (Paragraph [0017], lines 1-4); sending a request for detecting the current geographical location of said requestee (Paragraph [0028], lines 1-11), to a self-positioning means, when the trigger(s) is/are on so as to detect the current geographical location of said requestee, receiving the current geographical location of said requestee detected by said self-positioning means, calculating so as to generate the subscribed information based on the current geographical location of said requestee provided by said self-positioning means (Paragraph [0037], lines 6-8).

Regarding claim 31 Hines teaches the location service information providing method according to claim 29 [[or 30]], said self-positioning means being a GPS system (Paragraph [0037], lines 6-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muthuswamy G. Manoharan whose telephone number is 571-272-5515. The examiner can normally be reached on 7:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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